

REMARKS

By this amendment, Applicants have canceled claims 1-17 without prejudice or disclaimer.

Applicants, through their undersigned attorney, thank the Examiner for the telephone interview conducted between the Examiner and the undersigned on September 11, 2006. During the interview, the election of species requirement and the withdrawal of claims 18-24 from consideration were discussed. The undersigned reiterated Applicants' position that the election of species requirement as originally set forth in the Office Action of September 7, 2005 is incomplete since the Examiner handling the application at that time did not include the embodiment shown in Figures 11 and 12. Applicants' required election in their response of October 7, 2005 did not negate the impropriety of the election requirement. Moreover, the undersigned argued that claims 18-24 in fact read on the elected species and that claims 1-4, 7, 8, 10-12 and 14-17 as well as new claims 18-24 all read on the same elected species. The claims, while differing in scope, are merely different definitions of the same patentable invention in that all of the claims are broad enough to read on the embodiment of Figure 1. The Examiner agreed that claims 18-24 read on the elected invention. The undersigned indicated that a Request for Continued Examination would be filed, that claims 1-17 would be canceled and that the rejections in the outstanding Office Action would be traversed.

For the reasons provided above, claims 18-24 read on the elected invention and should be examined.

In view of the cancellation of claims 1-17, it is submitted the rejections of these claims in the final Office Action mailed May 25, 2006 are moot. It is submitted

the rejections in the outstanding Office Action do not apply to claims 18-24 for the following reasons.

It is submitted the rejection of claims 14-17 is improper and does not apply to claims 19-21, 23 and 24. In particular, these claims further define the invention set forth in independent claims 18 and 22 and set forth properties of the top sheet, i.e., the breathability of the top sheet. The claim is certainly definite since it specifically defines the breathability with a reasonable degree of particularity and distinctness. Apparently the Examiner agrees since the Examiner is not rejecting the claims under 35 U.S.C. 112, second paragraph.

In support of the rejection under 35 U.S.C. 112, first paragraph, the Examiner alleges the claims "cover any conceivable combination of ingredients...[and are] too broad." The Examiner appears to be using the reasoning of *In re Hyatt*, 708 2d. 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983), which held that a single means claim which covered every conceivable means for achieving the stated of purpose was not enabling for the scope of the claim because the specification disclosed at most only those means known to the inventor. However, the claims are not "single means" claims or claims which only recite a property. Rather, claims 18-24 recite combinations of a number of elements, the breathability of the top sheet being only one property of one of the elements. Therefore, the claims do not cover every conceivable means for achieving the stated purpose. Accordingly, the reasoning of *In re Hyatt* is not applicable. See, Manual of Patent Examining Procedure (MPEP) 2164.08(a).

The rejection of claims 1-4, 7, 8, and 10-12 under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent No. 5,911,222 to Lawrence et al.

(Lawrence et al. '222) is traversed insofar as the Examiner deems it to apply to claims 18-24.

The present invention relates to an automatic urine disposal device for discharging urine collected in an urine receptacle into a urine tank by using a vacuum pump, and to an urine receptacle used for an automatic urine disposal device to absorb urine discharge from a wearer's urinating part. According to the present invention, the urine receptacle comprises a substantially rectangular, non-breathable outer sheet, a urine absorbent material housed in the outer sheet, an a hard-breathable top sheet disposed on the surface of the urine absorbent material. The phrase "hard-breathable" is defined in Applicants' specification in the paragraph bridging pages 6 and 7 of the substitute specification. As defined therein, the "hard-breathability" of the top sheet means the breathability measured according to the General Textile Testing Method's breathability testing method A, prescribed in JIS L 1096, 6.27.1, from 0 to 100 cm³/cm²/second when the top sheet is moist and from 20 to 200 cm³/cm²/second when the top sheet is dry.

The Lawrence et al. '222 patent discloses a liquid removal system having an interface device and a vacuum source. The interface device has a porous membrane with an entrance zone on one side. Specifically, the interface device is provided with a top or body contact surface 17 and a bottom or external surface 18. The side of the interface device opposite the body surface side 17 is a plastic shell 28. The interface device further comprises an entrance zone which may be filled with a fibrous foam or other type filling material 24. The interface device is provided with a coverstock material 21 over body contact surface 17. The coverstock material is preferably hydrophobic or treated so that it is rendered hydrophobic. A preferred material for the coverstock is a non-woven polymeric fibrous material such as

polypropylene which is hydrophobic yet capable of breathing. The coverstock is disclosed to be capable of repelling moisture by retaining the capacity to "breathe" so that there is a reduced risk of irritation to the skin. See, column 5, lines 31-44 of Lawrence '222.

Thus, while the cover stock material of Lawrence et al. '222 retains the capacity to "breathe," the top sheet used in the present invention is a "hard-breathable" top sheet. A hard-breathable top sheet is fairly airtight (as defined in the paragraph bridging paragraphs 6 and 7 of the substitute specification). The hard-breathable top sheet and the outer sheet together with the top sheet keep the urine absorbent material highly airtight, so that the urine can be easily drained by a vacuum pump. In fact, a vacuum even at low power can achieve higher urine collection using the top sheet of the present invention than a vacuum pump at a high power without such a top sheet. See, Figure 6 in the description at page 11, line 10 to page 12, line 14 of the substitute specification. The hard-breathable top sheet and the unexpectedly advantageous results achieved thereby are neither disclosed nor suggested by Lawrence et al. '222. Accordingly, the presently claimed invention is patentable over Lawrence et al. '222.

Moreover, according to the present invention as set forth in claims 18-24, the configuration includes that the urine absorbent material is accommodated in the outer sheet made of soft flexible materials, the top surface of the urine absorbent material is covered by the non-woven top sheet, the urine absorbent material is kept highly airtight as well as the outer sheet, the urine sensor is provided on the vicinity of one end of the urine drainage tube made of soft flexible materials, the urine is absorbed into the urine absorbent material through the holes on the top sheet upon the wearer's urination, and the urination is detected by the urine sensor and then the

vacuum pump is activated. Due to this configuration, the urine receiver fits the wearer's body well, the wearer recognizes less wet feeling at the vicinity of urination, and thus he or she does not feel discomfort.

The inventors of the present invention focused attention to the following problems and solutions. That is, in order to prevent the wearer from feeling discomfort, it is difficult to reduce the wearer's wet feeling at the vicinity of urination only by effectively removing the urine from the surface as disclosed in the cited reference. Therefore, we recognize that it is required to make the urine receptacle smaller and lighter in order to wear and keep the urine receptacle inside the wearer's underwear.

In contrast, the cited reference fails to disclose or suggest the following features set forth in the added claims 18-24: a top sheet that keeps the urine absorbent material highly airtight, use of soft flexible materials for the urine tube in order to provide the urine tube at the vicinity of wearer's urination without discomfort, urine drainage that is promptly absorbed into the urine absorbent material through the holes on the surface sheet upon urination with the urine drainage being detected promptly by the urine sensor arranged at the entrance of the urine tube, and the discharged urine being transported to the urine tank by driving the vacuum pump.

Claims 14-17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lawrence et al. '222 in view of U.S. Patent No. 5,451,207 to Fujioka et al. Applicants traverse this rejection, in at least insofar it applies to claims 18-24.

The Fujioka et al. patent discloses a disposable diaper comprising front and rear bodies separately formed and welded together along only respective lower ends of a crotch zone, and a breathability of the front body being different from that of the rear body. However, this patent does not suggest a urine disposable device or urine

receptacle including the presently claimed hard-breathable top sheet. Accordingly, it is submitted the Fujioka et al. patent does not remedy the deficiencies noted above with respect to Lawrence et al.

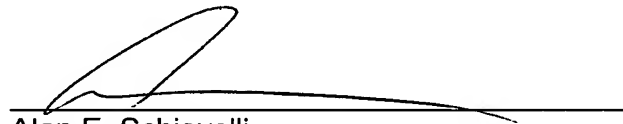
For the foregoing reasons, it is submitted the presently claimed is patentable over Lawrence et al. and/or Fujioka et al.

In view of the foregoing amendment and remarks, favorable reconsideration and allowance of all of the claims now in the application are requested

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 503.43626X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

A handwritten signature in black ink, appearing to read 'Alan E. Schiavelli', is written over a horizontal line.

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